IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Volker Mauer

Application No.: 10/781,082

Filed: February 17, 2004

Attorney Docket No.: ALTRP097/A1089

Examiner: Mai, Lam T.

Group: 2819

Title: Method To Compensate For Memory Effect In Lookup Table Based Digital Predistorters

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first-class mail on November 30, 2005 in an envelope addressed to Mail Stop Issue Fee, Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

Printed Name: Leslie Russell Signed: Leslie Russell

COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In the Examiner's Statement of Reasons for Allowance, Claims 2, 24, and 41 were noted as being allowed over the prior art of record. However, Applicants believe that the novel and unobvious limitations cited by the Examiner for claims 2, 24, and 41 are more accurately reflected in the actual claim language as follows:

2. A predistorter operable to compensate for distortion introduced by a semiconductor device, comprising:

a lookup table operable to provide a correction factor in response to an index value generated from a plurality of past values of an input signal intended for the semiconductor device; and

a conditioning module operable to apply the correction factor to a current value of the input signal, wherein application of the correction factor to the current value of the input signal compensates, at least in part, for portions of the distortion corresponding to the plurality of past values of the input signal.

24. A method to compensate distortion introduced by a semiconductor device:

receiving a current input signal intended for the semiconductor device;

receiving a feedback signal from the semiconductor device, the feedback signal being the result of the current input signal having been processed by the semiconductor device;

aligning the current input signal and the feedback signal in determining a differential value;

calculating a correction factor, the correction factor being a function of the differential value;

generating an index from the current input signal and a past input signal;

correlating the index with the correction factor;

conditioning a future input signal with the correction factor; and

outputting the conditioned future input signal to the semiconductor device, the conditioned future input signal being able to compensate, at least in part, for portions of the distortion corresponding to both the current and past input signals.

41. A computer program product for programming a PLD to compensate for distortion introduced by a semiconductor device, the computer program product comprising:

at least one computer readable medium; and

computer program instructions stored within the at least one computer readable product configure for:

receiving a current input signal intended for the semiconductor device;

receiving a feedback signal from the semiconductor device, the feedback signal being the result of the current input signal having been processed by the semiconductor device;

aligning the current input signal and the feedback signal in determining a differential value;

calculating a correction factor, the correction factor being a function of the differential value;

generating an index from the current input signal and a past input signal;

correlating the index with the correction factor;

conditioning a future input signal with the correction factor; and

outputting the conditioned future input signal to the semiconductor device, the conditioned future input signal being able to compensate, at least in part, for portions of the distortion corresponding to both the current and past input signals.

If any fees are due in connection with the filing of this Comments on Statement of Reasons for Allowance, the Commissioner is authorized to deduct such fees from the undersigned's Deposit Account No. 50-0388 (Order No. **ALTRP097**).

Respectfully submitted,
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